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An organisation without a memory: A qualitative study of hospital staff perceptions on reporting and organisational learning for patient safety

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ABSTRACT

Following the Public Enquiry into avoidable deaths and poor standards of care at Mid Staffordshire NHS Foundation Trust, the English National Health Service (NHS) is aiming to become a system devoted to continual learning and improvement of patient care. The paper aims to explore current perceptions of healthcare staff towards reporting and organisational learning for improving patient safety. Based on a Thematic Analysis of semi-structured interviews with 35 healthcare professionals in two NHS organisations, the paper argues that previously identified barriers to incident reporting remain problematic, and that less centralised processes that aim to learn from everyday clinical work might be better suited to generate actionable learning and change in the local work environment. The findings might support healthcare organisations in understanding better the practical processes of organisational learning at the local level. The findings might also support researchers in developing new approaches and strategies for integrating learning about risk at the local level with effective organisational change to improve patient safety.

1. Introduction

The Public Enquiry into poor standards of care at Mid Staffordshire NHS Foundation Trust suggests that between 2005 and 2009 as many as 1200 patients died needlessly and many more patients were subjected to unnecessary suffering [1]. The subsequent Berwick report generated lessons and suggestions for change for the UK government and the National Health Service (NHS) in England [2]. The report recommends that the NHS should aim to become a system devoted to continual learning and improvement of patient care.

In safety-critical industries, the development of a reporting and learning culture is a key feature of successful organisations [3]. A reporting culture ensures that safety management systems (SMS) are fed with important safety-related information from people who are in direct contact with potential hazards. A learning culture ensures that the organisation is able to draw the right lessons from its SMS, and that the organisation is willing to embrace change when it is needed.

Organisational learning can be characterised as a continuous cycle of action and reflection [4]. Organisations might be more successful at learning from past experience if they create and foster the capacity for deep reflection on whole system dynamics, which can lead to fundamental change [5]. On the other hand, insistence on past traditions, and quick fixes to existing strategies and procedures might inhibit more powerful forms of organisational learning. Organisations have a range of learning processes at their disposal, which might be internal (for example audits and adverse event reviews) as well as external (for example feedback from the regulator) [6].

Many organisations are relying on incident reporting systems as a key process for reporting and organisational learning. Incident reporting is based on the assumption that useful learning can be generated from staff feedback about incidents and near-misses rather than waiting for an accident or adverse event to happen [3,7]. The precursors and the contributory factors are assumed to be similar in both cases. Hence, the analysis of an incident can offer free lessons about weaknesses in the system's defences and deficient organisational processes resulting in latent conditions. These can be addressed before something bad happens. In this sense, incident reporting opens up windows onto the underlying system dynamics in the same way as accidents or adverse events would [8].

Incident reporting was introduced into the NHS following the influential report "An Organisation with a Memory" by the Department of Health [9], which highlighted that knowledge about the extent of harm inflicted on patients was scarce. The report recommended the development of a reporting system that systematically captures data about incidents in the NHS and thus provides an indication of the extent and the nature of harm that

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patients suffer. As a result, the National Patient Safety Agency (NPSA) was established in 2001, and the agency developed the National Reporting and Learning System (NRLS) in 2003. Following the abolishment of the NPSA in 2012, an academic health science centre now operates the NRLS temporarily. In addition to the NRLS, many NHS organisations are also operating local incident reporting systems at departmental and organisational level. Incident reporting is now well established in the NHS, and it is regarded as a key instrument for improving patient safety and the quality of services [10,11].

While an early evaluation of the contribution of NRLS to patient safety found that higher incident reporting rates in organisations were associated with positive data from safety culture surveys [12], there have been a great number of studies over the past ten years, which have challenged the utility and efficacy of incident reporting for bringing about change and improvements in patient safety [13]. Research suggests that there is significant under-reporting of incidents [14], in particular among physicians [15]. There has been considerable research into barriers to successful learning from incident reporting, including lack of training in the use of incident reporting, usability problems of the systems that have to be used, uncertainty about what constitutes a reportable incident, blame culture and fear of repercussions, and lack of feedback [16–21]. The perceived lack of learning and the absence of change to practice might further reduce the willingness of staff to contribute to incident reporting [22,23].

Given the recognised limitations and practical problems of incident reporting, one might ask whether incident reporting should remain at the centre of efforts aimed at moving the NHS and other healthcare systems towards becoming learning organisations [24]. This paper aims to explore current perceptions of healthcare staff in two NHS hospitals towards reporting and organisational learning for improving patient safety. The paper argues that previously identified barriers to incident reporting remain problematic, and that less centralised approaches that aim to learn from everyday clinical work might be better suited to generate actionable learning and change in the local work environment. The findings might support healthcare organisations in understanding better the practical processes of organisational learning at the local level. The findings might also support researchers in developing new approaches and strategies for integrating learning about risk at the local level with effective organisational change to improve patient safety.

Section 2 describes the research approach and methods used. The main findings are reported in Section 3. The importance of these findings is discussed with a view to the literature in Section 4. Section 5 reflects on limitations of the study. Implications for practice and for research are highlighted in the concluding Section 6.

2. Methods

The study used a qualitative, multi-site research design to explore perceptions of hospital staff of their experiences with and attitudes towards reporting and organisational learning for improving patient safety. Data were collected through semi-structured interviews with 35 staff from two participating hospitals. The aim of the data analysis was to identify and to describe key themes in participants' understanding of reporting and organisational learning as it relates to their everyday work experience. Therefore, an inductive Thematic Analysis approach was chosen to analyse the data. Below, further details about the participating study sites, and the data collection and data analysis are provided.

2.1. Setting

Organisations participating in this study were two English NHS hospitals. At hospital A the study was undertaken within the radiology department, and at hospital B within the Surgical Emergency Admissions Unit (SEAU). The two departments were chosen to reflect different characteristics: on the one hand a highly structured diagnostic services environment, and on the other hand a busy and dynamic ward environment that provides emergency services also during night time.

Hospital A is a district general hospital (DGH) with approximately 240 beds. The radiology department consists of the main X-ray department and a number of specialist modalities such as CT (computed tomography), MRI (magnetic resonance imaging) and nuclear medicine. The whole department employs approximately 90 staff. Some of these are employed part time. The roles within the department range from clerical, radiographic assistant, Assistant Practitioners, radiographers, specialist radiographers, advanced practitioners and consultants. Radiographers perform medical imaging (in the above modalities), which supports the diagnostic and therapeutic processes carried out by radiologists and Radiology Assistants. Senior Radiographers have additional duties for training of more junior radiographers, and for operational management of the department. Assistant Practitioners support the radiographers by escorting and preparing patients, preparing procedure rooms, processing film images, and a range of other support duties.

Hospital B is a large county hospital with approximately 600 beds. The SEAU is now part of the Emergency Assessment Unit (EAU), which houses also medical emergency assessment services. There are 24 beds available on EAU. EAU has a large team of medical, surgical, nursing, clerical and housekeeping staff. Referrals come from a wide range of areas, including emergency department (ED), General Practitioners (GPs), and outpatient clinics. There are between 600 and 800 admissions to SEAU per month. Doctors working in SEAU are not based on the ward, but are there on a rotational basis during their on-call period. Foundation Year 1 and Foundation Year 2 doctors do a lot of the hands-on work with the patients. Registrars and consultants supervise them and provide training. On the nursing side, the matron is the head of nursing for the hospital. The Ward Sister is responsible for the management of the nursing staff on the ward. Staff Nurses provided nursing care. They are supported by Healthcare Assistants, who undertake routine hygiene with patients etc. Nurse practitioners fill a fairly recent role with advanced duties of autonomous patient care, forming something of a middle ground between doctors and nurses.

2.2. Data collection and data analysis

The study had full NHS research ethics approval from National Research Ethics Committee North West – Preston (Ref. 11/NW/0847) as well as institutional approval at the participating hospitals. All study participants were staff of the participating organisations. Participants received a participant information leaflet, and provided written consent prior to their involvement. Participation was voluntary, and participants were free to withdraw at any time.

Semi-structured interviews were conducted with a purposive sample of 35 staff from the two participating hospitals during May–November 2012. Participants were approached initially by the study contact at each hospital. Participants were sampled to provide a diverse representation of the different professional roles within each department. An overview of participants by role is given in Table 1. Interviews lasted between 20 and 30 min, and were carried out by the author. Interviews were audio recorded and transcribed. Any identifiers were removed to preserve

anonymity. The interviews explored participants' perceptions on reporting and learning, and the way safety is being talked about in their department, as illustrated in Table 2.

Interview transcripts were analysed inductively and iteratively using Thematic Analysis [25]. Transcripts were first read and then coded by the author using Open Coding [26]. Open Coding breaks down the qualitative data contained in the transcripts into discrete parts for close examination and comparison with one another. An analytic memo was kept as each transcript was coded to keep track of thoughts and ideas, and to reflect on the coding process. During this first-cycle coding process the analytic memos were shared and discussed during project meetings. Categories were identified through clustering of similar or related codes in project meetings. Categories were constantly compared with the data and revised until new data added no further conceptual insights. During this second-cycle coding process, attention was given to describing the relationships between the categories in order to identify a small number of overarching themes. The coding was supported by the NVivo 10 software package.

A single researcher did the coding (the author). This introduces the possibility of bias and might reduce the validity of the findings. Two strategies were adopted in order to ensure adequate quality and validity of the qualitative analysis process. Firstly, the analytic memos and the emerging findings of the analysis were reviewed and discussed at regular intervals during multi-disciplinary project meetings (involving participants with qualitative research skills and participants with a clinical background). Secondly, stakeholder validation was undertaken at each site with a sub-set of respondents (5 participants per hospital) in the form of one-to-one meetings. At the validation meetings, the aims of the study were recaptured, and the main findings of the study were described. Participants were then invited to review the findings. Participant feedback was incorporated to refine and clarify the findings. The purpose of the stakeholder validation was to ensure that the breadth of perceptions was adequately captured, rather than to establish a consensus about specific issues among participants (i.e. participants might have expressed differing opinions from one another, but agreed that their respective points of view had been adequately described).

Table 1
Interview participants by role.

Hospital A/radiology		Hospital B/SEAU	
ID	Role	ID	Role
A01	Radiology Assistant	B01	Ward Sister
A02	Radiographer	B02	Matron
A03	Assistant Practitioner	B03	Acute Care Practitioner
A04	Radiographer	B04	Clinical Educator
A05	Assistant Practitioner	B05	Foundation Year 1 Doctor
A06	Radiographer	B06	Foundation Year 2 Doctor
A07	Radiology Assistant	B07	Foundation Year 2 Doctor
A08	Medical Secretary	B08	Foundation Year 1 Doctor
A09	Radiographer	B09	Staff Nurse
A10	Radiographer	B10	Healthcare Assistant
A11	Senior Radiographer	B11	Healthcare Assistant
A12	Assistant Practitioner	B12	Staff Nurse
A13	Radiographer	B13	Healthcare Assistant
A14	Radiographer	B14	Staff Nurse
A15	Radiographer	B15	Foundation Year 1 Doctor
A16	Assistant Practitioner	B16	Foundation Year 2 Doctor
A17	Radiographer	B17	Ward Sister
		B18	Staff Nurse

3. Results

The analysis identified two key themes that might be referred to as “reporting formally” on the one hand, and “discussing informally” on the other hand: (i) perceptions on incident reporting practice, barriers to reporting, and the perceived lack of improvements; and (ii) perceptions on less formal, locally owned processes for reporting and learning that might complement the more formal, risk management and clinical governance processes.

3.1. Incident reporting

3.1.1. Incident reporting in practice

All participants identified incident reporting as the main instrument to communicate and record formally serious patient safety issues. Both hospitals operate incident reporting systems that feed into the NRLS. At hospital A, radiology staff fill in paper-based incident reports, and give these to their departmental manager, who forwards the reports to the quality and safety department. Hospital B has an electronic incident reporting system in place, and staff fill in incident reports on a computer, which are sent to the risk management department. At both hospitals staff would normally communicate the incident verbally to their manager first, and submit an incident report later.

Table 2
Topics explored during interviews.

Topic	Prompts
Reporting & learning: how do staff feel about the processes that are in place for organisational learning?	Could you please describe the processes that are available to you in order to contribute to organisational learning for improving patient safety? Who owns (is responsible for) these processes for reporting and organisational learning? For whom are they intended? Are you encouraged to report any concerns that you might have? Do you feel that you can make a useful contribution to improving the system by reporting problems? Please provide an example. Is reporting useful to you personally as a tool for reflection? Please provide an example. Do you receive any feedback on safety concerns that have been expressed? Please provide an example. Does reporting things lead to any learning in the work environment? Please provide an example.
Communication about safety: how open and useful is communication about patient safety in the department?	Do you receive information about safety concerns and safety improvements? On what kind of occasions? If an incident happens (examples: wrong medication administration; patient fall), how is this being talked about in the department? What might your manager say? How would your peers discuss this? What happens with people who have been involved in an incident? Are there any opportunities to discuss safety concerns with your peers? And with your supervisors or other managers? Please provide examples. Is any action taken as a result of such discussions about safety concerns? Do the discussions lead to improvements?

Participants from both hospitals expressed views that incident reporting was a mechanism predominantly for documenting serious incidents, i.e. events where patients were harmed or events that could have led to significant patient harm, such as the administration of medication to a patient with a documented allergy. While participants characterised the purpose of incident reporting as "*looking at lessons learned from that* [*incident*] *and closing the loop*" (B02Matron) in order to make changes "*back where this incident happened to make this incident less likely happening*" (B07 Foundation Year 2 Doctor), participants also described a range of other motivations for filling in incident reporting forms. These motivations include taking personal responsibility ("*you'd own up to doing it and admitting that you made an error.*" B12 Staff Nurse), guarding oneself against patient complaints and possible repercussions ("*I wrote an incident report about that to give to* [*Manager*]*, just to cover myself really because it wasn't any fault of mine*." A02 Radiographer), and meeting legal obligations ("*I suppose we're all very aware that legally we could be in trouble if we don't report it.*" A11 Senior Radiographer).

3.1.2. Barriers to incident reporting

Participants identified numerous barriers to incident reporting across both sites (see Table 3). While participants with departmental management responsibilities gave clear descriptions of how incident reports are dealt with in their respective departments and organisations, frontline staff expressed confusion about the process. Frontline staff offered various guesses about who or which departments in the organisation would look at incident reports, but they acknowledged that they did not know for certain or in any kind of detail. The views expressed suggest that staff perceive the incident reporting process as being owned and managed by some other entity in the organisation, who will take action as required, rather than as a process that is owned by their department.

Closely related to this perception of external ownership is the absence of feedback to staff who report incidents. Participants expressed views that they do not normally receive feedback on reports they submit, and that this might prevent staff from reporting incidents. Receiving feedback was described as desirable not only to know what is being done in response to a particular incident, but also to improve professional and departmental practice.

Fear of repercussions for oneself as well as for colleagues was identified as another barrier to reporting incidents. Frontline staff described management attitudes as being directed towards disciplining individuals. For example, when a nurse is involved in a wrong medication administration incident, the individual might

Table 3
Perceptions on barriers to incident reporting.

Barrier	Example quotations
Frontline staff feel they do not understand how incident reporting works in practice	"Do you know, I don't know who looks at it. I think it just goes up the tiers so the sister, the matron and then if need be, it goes higher than that." B12 Staff Nurse "You just hope that it'll reach the right people." B11 Healthcare Assistant "Well, as far as I'm aware, it goes to – I don't actually know where it goes. It must be something to do with complaints or something I presume, but I'm not definite and then beyond that, I've no idea." A03 Assistant Practitioner "And then I think it gets sent somewhere in the Trust. I don't know where it gets sent to. But there's somewhere it gets sent to and I think they analyse it and I don't know what happens after that. I think they look for a pattern and then follow things up." A14 Radiographer
Staff who report incidents do not receive meaningful feedback	"I think incident reporting probably doesn't get done as it should do because people don't ever see feedback from it, if that makes sense?" B03 Acute Care Practitioner "I suppose it just got filed away. I've never heard anything again." B08 Foundation Year 1 Doctor "But there's no feedback. You don't get feedback on your incident forms, but I'd quite like to get feedback so you could improve yourself professionally probably, yes." A04 Radiographer "You can ask. I've asked a couple of times […] But I think it's the same anywhere you go. Like at where I used to work it was the same. They'd never give you any feedback." A17 Radiographer
Incident reporting is perceived as an activity that might have undesirable repercussions	"I think it probably needs to be promoted more as a beneficial thing. I think it's what you can get back from it. I think everybody sees it as they're going to get into trouble, or something like that – the negative part, rather than the positive." B03 Acute Care Practitioner "And so that's always that in the back of your mind. What am I doing to that person and their fitness to practice and how that's deemed by reporting them." B14 Staff Nurse "We don't know where it goes, we don't know what the repercussions are going to be and we don't get any feedback." A16 Assistant Practitioner "I'm not aware of any negligence but if a staff was negligent then that would be obviously taken further. Disciplinary and things like that." A15 Radiographer
Lack of computers, usability of electronic incident reporting systems, lack of training, and the time required to fill in reports might stop staff from reporting incidents	"Well, the incident reporting form has to go on the computer, so that's a case of if you can find a computer – and they're not an easy form to fill in." B03 Acute Care Practitioner "It was an IR1 form [Incident Report Form 1] we fill in, but we don't really get trained in how to do that." B08 Foundation Year 1 Doctor "It's one of those things that you've got to judge in terms of the time it takes to put into some of the things like the incident reporting. For example, is that half an hour filling out an incident report for a fall better spent actually assessing a patient's mobility and other things, because I think a lot of the incident reporting wastes time that could be used to provide better care for patients." B05 Foundation Year 1 Doctor "Yeah, an incident in a busy clinic. You think 'Oh, no, I've got to write an incident form.' And you've got a room full of patients, you know." A10 Radiographer

be prevented from administering medications until they have gone through a number of training and reflective activities. This might be perceived as unjust and undesirable by frontline staff. As a result, morale may be affected negatively, and staff might chose not to report unnoticed incidents. Similarly, when somebody recognises the mistake of a colleague, they might make a trade-off decision against reporting the incident and instead address it with the colleague in a private conversation rather than subjecting them to a potential disciplinary process.

Participants also identified various work place related barriers, such as problems finding an available computer, difficulty in using the electronic incident reporting system and lack of training in incident reporting. Filling in incident reports is also perceived as a time-consuming activity, and this might be hard to fit into an already very busy schedule. Therefore, staff face the daily dilemma of prioritising between filling in forms (including incident reports) and patient care.

3.1.3. Lack of improvement resulting from incident reporting

Interview participants across both sites identified the lack of improvement resulting from incident reporting as one of the most significant negative aspects. In the view of participants, incident reporting can and does trigger improvements in practice. However, such improvements appear to follow in particular from serious adverse events or external stimuli, such as national programmes to reduce certain types of adverse events (e.g. patient falls, pressure ulcers etc.). In the quotation below, a junior doctor describes how a falls assessment was implemented in response to a large number of reported patient falls. However, the prevention of patient falls had already been identified as a priority for the organisation (hence, the requirement to record patient falls), and national initiatives (such as a falls risk assessment) had been made available. Sometimes such improvements might not be perceived as the result of a dedicated drive for continuous improvement, but rather as the response of a bureaucratic organisation to national requirements ("*it's all about ticking boxes*". B14 Staff Nurse).

> "*I know that* [*there are improvements*] *because we had a high number of falls and we often get a high number of falls. Now everyone has to have a falls assessment when they're admitted to hospital and that in itself shows, whereas before that didn't exist. I don't know how long it took to bring it in place, but I know it came in place somewhere around February I think, if I'm not mistaken, and that was as a result of the fact that there were a lot of – because everyone had to report a fall and there were a lot of falls.*" (B07 Foundation Year 2 Doctor).

Participants recognise that large organisations might not be able to address all incidents. However, the inability to address reported problems might be of such an extent that staff end up regarding incident reporting as a paper exercise and a pointless activity. Participants provided a range of examples of situations and problems where they felt that patient safety was threatened, but the organisation had not taken any steps to improve the situation. The examples fall into two categories: (a) risks that are perceived to have less severe consequences, such as a patient hitting their head on an awkwardly placed shelf; and (b) risks that require inter-departmental communication and collaboration to improve the situation. An example for the latter was described by a participant from the radiology department with respect to patient transfer from the emergency department (ED). The participant suggested that frequently patients would be left unescorted in the radiology department, and that the equipment used for patient transfer often was inadequate or broken. This poses a risk to both patient (falls) and healthcare professional (personal injuries). However, the learning from resulting incidents was not shared or not addressed in a collaborative effort: "*So it's almost like that feedback isn't given to them* [*ED staff*] *for them to be able to improve the way they work with us*." (A03 Assistant Practitioner).

In addition to bureaucratic culture and the inability to address frequent and inter-departmental patient safety risks, participants also identified a reluctance to change among senior staff as an obstacle to deriving improvements from incident reports.

The unclear process of incident reporting in practice, the barriers to reporting, and the lack of change as a result of incident reporting result in widespread frustration among staff with this type of organisational learning. Participants described instances where they have come to accept problems rather than reporting them (e.g. broken equipment, patients hitting their head on a shelf) even though they acknowledge that this is not a helpful attitude. However, such behaviours are the result of the perceived inability of staff to contribute to improvement, it is "*like a bit of a voice that doesn't get listened to*" (A12 Assistant Practitioner).

3.2. Informal, locally owned processes

While incident reporting was identified as the main formal process for reporting and organisational learning, participants described a number of other processes for reporting and learning to improve patient safety. These processes and opportunities for discussing informally patient safety concerns and possible improvements fall into three categories: (a) departmental staff meetings, (b) discussions with the manager, and (c) discussions with peers. Discussing patient safety concerns informally through these processes might lead to greater shared awareness of problems, provide more feedback, and create ownership for solutions and improvements that are generated. Even when problems cannot be resolved, discussing informally might engender a greater feeling of being listened to.

3.2.1. Departmental staff meetings

Both organisations have regular staff meetings, where different topics, including patient safety, are discussed. At hospital A, these meetings take place weekly, whereas at hospital B they take place once a month. Participants from hospital A expressed many positive views about their departmental meeting. Participants described the purpose of the meeting as building shared awareness of departmental issues and an opportunity to receive feedback and updates on developments ("*It's sort of updates weekly of what's going on*" A02 Radiographer). The meeting is also an opportunity to raise any patient safety concerns staff might have, so staff are being "*told stuff as well as being able to give stuff*" (A17 Radiographer). Participants from hospital B expressed similar positive attitudes towards their departmental meeting. However, the reduced frequency at which the meetings take place at hospital B might mean that there is less opportunity for staff to contribute actively any concerns they might have ("*I think they ought to have them more often. People can air their views more*." B11 Healthcare Assistant).

While this regular two-way communication was experienced as very positive both for building shared awareness and being involved personally, participants also expressed some concerns. Patient safety might not always be talked about, and the group setting might be intimidating and might prevent people from raising concerns. Participants also expressed concerns about the lack of inter-departmental collaboration on patient safety. The departmental meeting by its nature does not involve individuals from other departments, and this might hinder progress on important patient safety issues. The interviewee in the quotation below discusses this point. The interviewee suggests that the continuing problems with patients coming unescorted from the

ED might require a collaborative inter-departmental improvement effort.

> "*I mean you sometimes feel almost like you could have like a multi-disciplinary meeting where you met maybe people from A&E* [*Accident & Emergency*], *or a sister on the ward or say, you know, the senior in charge had meetings with certain people to actually explain what our problems are, rather than just saying nothing*" (A03 Assistant Practitioner).

3.2.2. Discussions with the manager

Participants with management responsibility suggested that they would expect members of staff to approach them if they had any immediate concerns, rather than wait to raise these in a staff meeting in the future. Participants suggested that they were trying to be visible and approachable, because they need to know about any problems or issues of concern. Participants with management responsibility also expressed the need to do something about the concerns that are brought to their attention. However, resolving issues such as inadequate staffing levels might not always be an option. On the other hand, participants suggested that it was really about supporting the individual who came to them with a concern.

Frontline staff echoed such sentiments, and described informal discussions with their managers as a useful way to raise concerns. The perceived utility arises from the fact that the manager will listen and take their concern seriously, even if no immediate action results, as expressed in the quotation below.

> "*The door's always open actually. So if you have a problem, you can go to them* [*manager*]. *It doesn't necessarily mean it'll get sorted out there and then, but if you do have a problem, she will listen.*" (A10 Radiographer)

Another perceived benefit of raising concerns in informal discussion with the manager is that the manager then has information, or "*a leg to stand on and say, 'Look, one of my juniors has said this'*" (B07 Foundation Year 2 Doctor), and in this way can effect change with other managers or across departmental boundaries more easily.

3.2.3. Discussions with peers

Discussion with peers is probably the most informal process to share concerns about safety and to learn from experience, but arguably also the most prevalent one, happening on a daily basis. Such discussions represent opportunities for building awareness, for sharing lessons, for alerting colleagues to mistakes and discussing these without fear of repercussions, and for raising concerns across departmental boundaries. Informal discussions are perceived as quicker than more formal processes, such as incident reporting, and as having greater potential for delivering change in everyday practice. In the quotation below a junior doctor is reflecting on this everyday learning, suggesting that it is a better route to learning than more formal processes (such as incident reporting or teaching sessions).

> "*Unofficially though, you talk about it* [*patient safety*] *every day. I mean because somebody will tell you so and so happened and then you think, oh. I think unofficially, we probably learn a lot more just by liaising, talking with your colleagues, talking with the nurses, listening, being aware of what's going on around you.*" (B07 Foundation Year 2 Doctor)

This type of learning emphasises the personal, but in order to become organisational learning, lessons need to be shared with managers as well. One way, in which this informal personal learning can turn into organisational learning and organisational change is by bringing together groups of people who share a common interest in a problem. At hospital A, staff organised informal weekly lunchtime discussions, where small groups of people discussed problems and devised improvements. The perceived benefits of these informal lunchtime discussions are that anybody can raise any type of concern, and that they result in visible improvements to the work environment by creating ownership of problems and improvement actions among staff.

In the quotation below, a radiographer describes how a group of colleagues discussed the problem of patients coming from the ED who are left in the radiology department (alluded to above). This has been a recurring problem, and it caused a lot of frustration among staff. The lunchtime discussions generated sufficient interest and momentum to tackle the problem and to work on possible solutions with ED staff.

> "*We had some issues with patients not having nurses coming with them and being left in the department so this was talked about in one of those meetings that I told you about that we have in lunchtimes on a Friday. That issue was brought up then and then somebody made a table about monitoring it and seeing how often it happened. When it happened. And then that was relayed back to A&E to see if A&E could sort it out and we sort of worked together to make a change and now it's a lot better.*" (A17 Radiographer)

4. Discussion

The empirical evidence presented in this paper suggests that practitioners utilise a range of different processes for reporting and organisational learning for improving patient safety. While incident reporting is perceived as the main process for formally documenting patient safety threats, practitioners also make use of other, less formal processes to share lessons and to improve patient safety on an everyday basis. Study participants regard incident reporting as an important tool for organisational learning, but this approach might be best suited for learning from infrequent, extraordinary events. Existing barriers to incident reporting remain problematic, and this might make this approach less suitable for delivering actionable learning on many everyday patient safety concerns. Informal processes such as regular staff meetings, discussions with line managers, and discussions with peers and within groups of peers might offer greater potential for ensuring that lessons about patient safety are shared, that staff feel they are being listened to and that they can make an active contribution to improving patient safety.

Incident reporting is an important process for organisational learning that has the potential to make a positive contribution to improving patient safety [10,11]. However, this study suggests that healthcare professionals regard incident reporting not only, or even primarily, as a tool for organisational learning. As described in Section 3.1, participants associated also other motivations with reporting incidents, such as taking personal responsibility for errors, guarding oneself against patient complaints and repercussions, and meeting legal obligations to report incidents. These motivations will have an influence on the types of incidents that are reported and the frequency with which they are reported. Studies comparing hospital incident reporting data with data generated from complementary methods such as chart reviews and observations conclude that incident reporting data has significant limitations in reflecting the frequency at which incidents occur as well as in describing the nature of these incidents [14,27]. Cook [28] even states that incident reporting systems have become a barrier to progress on patient safety because these systems simply classify and reduce incident reports to convenient

numbers that provide no real insights, and because they consume most of an organisation's resources dedicated to patient safety.

The literature previously identified a large number of barriers to successful incident reporting, including lack of feedback from incident reporting, lack of learning, poor usability, lack of time and equipment, and fear of repercussions [17–19,21,22]. The evidence gathered suggests that these barriers remain problematic, even though there has been considerable effort over the past ten years to transform healthcare organisations into learning entities. The evidence further suggests that participants perceive that there is a lack of improvement resulting from incident reporting, and that actions resulting from incident reporting might be perceived as the response of a bureaucratic organisation to national requirements. This echoes previous observations that mandating formal learning processes does not in itself guarantee learning [4]. It is also consistent with Carroll and Fahlbruch, who suggest that the analysis of incidents does not automatically represent useful learning [29]. The results presented in this paper raise further questions about the suitability of incident reporting as the main approach for organisational learning to improve patient safety, and for the capability of this approach for transforming the NHS (and other healthcare systems) into a learning organisation.

It appears reasonable, therefore, to suggest that healthcare organisations should seek out alternative approaches that might lead to actionable learning relevant to the local work environment in order to complement their established formal organisational learning processes [24,30]. The evidence presented in this paper suggests that healthcare professionals utilise a number of different processes for organisational learning to improve patient safety. These processes, such as staff meetings, informal discussions with managers and peers, and informal lunchtime groups, are perceived as locally owned processes, and they might be better suited to provide shared awareness, to make staff feel that they are being listened to and that they can make a contribution to improving patient safety, and for generating ownership for improvement interventions. A helpful illustration of how informal processes can lead to real change in practice was provided in the example in Section 3.2, where participants from hospital A described the frustrations about the practice of transferring patients from the ED and leaving them unescorted in the radiology department. This had been a recurring and stubborn patient safety and staff safety threat that was eventually resolved through a collaborative effort between staff from the radiology department and the ED. This successful inter-departmental collaboration had its origin in informal lunchtime meetings, where staff who were unwilling to accept these safety threats dedicated their spare time towards identifying and implementing an improvement intervention.

Carroll and Edmondson suggest that organisations learn by creating opportunities for information flows and knowledge creation [4]. However, the locally owned processes for discussing informally patient safety concerns described in this paper are not usually part of an organisation's approach to organisational learning and patient safety management, and are, therefore, not explicitly supported. Research suggests that where organisational effort is invested to support and include such processes, these can have a positive effect on staff engagement in reporting and learning activities [31] and on patient safety [32]. Utilising a range of processes that draw upon and strengthen different aspects of an organisation's culture might enable healthcare organisations to deliver more sustainable improvements in patient safety [33]. Building such capability requires collective attention and leadership across the individual (champions, enthusiasts), departmental (operational and middle management) and organisational level (executive leadership) [4,34].

A challenge that healthcare organisations and researchers are facing is to define effective structures for integrating these different processes for organisational learning. Decentralised and informal approaches to organisational learning might be better suited for creating the kind of learning that is relevant to the local environment. This provides organisations with the flexibility and mindfulness that are required for responding to local challenges [23,35]. Formal approaches, such as incident reporting systems, operated by a risk management department at the organisational level might best serve the function of centralising decentralised risk information [36], by spreading lessons from local improvements across the organisation, by ensuring that improvements at the local level do not have adverse consequences elsewhere in the organisation [37], and by disseminating quickly new risk information.

5. Limitations

Study participants were clinical frontline staff who are expected to contribute to reporting and learning systems, and staff with departmental operational management duties. While this focus was justified by the scope and aims of the study, the exclusion of other groups, such as senior managers, might have introduced a source of potential bias. One might also argue that frequently successful and sustainable change requires authority and support from senior managers, who were not considered in this research.

A second source of potential bias arises from the publicity around the Mid Staffordshire enquiry. The organisations that volunteered to participate in this research might have been ones that perceived a significant need to improve their ability to learn and to improve. Participating staff might have reflected on existing approaches in light of the failings that were reported in the media at Mid Staffordshire. The possible impact of this potential bias was reduced in the study by including staff with diverse demographic backgrounds, such as staff who had been in the respective organisation for many years as well as staff who had been there for a shorter period of time coming from another organisation, and those on their first clinical placement.

A final source of bias arose from the author's prior experience with the topic, both first hand and informed by the literature. This is reflected in the interview guide that prompts participants to consider both formal processes for reporting and organisational learning, as well as informal processes. Ultimately, this contributed to the identification of the two themes of “reporting formally” and “discussing informally”.

While it is important to reflect on potential sources of bias in qualitative analysis, steps have been taken to ensure adequate validity of the findings. As described in Section 2, these included the use of reflective analytical memos, discussions of emerging findings in multi-disciplinary team meetings, and stakeholder validation exercises.

6. Conclusions

Learning from scandals, such as the needless suffering of patients at Mid Staffordshire, have set the NHS and healthcare organisations around the world on the path to becoming systems dedicated to continuing learning and improvement. It seems unlikely that this journey can be undertaken successfully simply by doing more of the same – reporting more incidents and generating interventions that fail to lead to sustainable improvements in patient safety. Healthcare organisations should seek out alternative approaches to complement their established processes for reporting and organisational learning. This study identified a number of informal processes that healthcare professionals are relying on in order to support their everyday learning, and these

processes might have greater potential for enabling staff to raise concerns and to contribute actively to patient safety improvements. Healthcare organisations should aim to understand and support such informal, locally owned processes. Research should explore ways of integrating local learning about vulnerabilities with risk information at the organisational and health system level in order to trigger effective change to improve safety and foster staff engagement.

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